

# Stepping Into Nature

## CONSERVATION AREAS

Step into Nature at one of Ontario's 270 conservation areas! Conservation areas are natural lands that are owned and managed by Conservation Authorities.

The Lower Thames Valley Conservation Authority owns nearly 640 hectares of protected wetlands, forests, tallgrass prairies, and lakefront and habitat restoration sites. Of these properties, 18 publicly accessible conservation areas provide a place for nature to thrive and people to explore. Many of these lands have been naturalized and have few or no facilities, however the more developed conservation areas offer pavilions, trails and boardwalks, interpretive facilities, and venues for fishing, hiking, camping, canoeing, picnicking, cross-country skiing, snowshoeing and even weddings!

C.M. Wilson and Longwoods Road Conservation Areas offer many facilities for the public. C.M. Wilson, with its campground, barn pavilion, small lake, memorial forest and Children's Safety Village, increased attendance to 19,677 visitors in 2017, providing a unique escape to nature right in Chatham-Kent's back yard! Longwoods Road, home of the Ska-Nah-Doht Village and Museum, is located in the Municipality of Strathroy-Caradoc. Over 17,641 visitors enjoyed public events, educational programming, and year round activities at the pavilion, Carolinian forest trails and group campgrounds.

Conservation area development and maintenance of facilities are enhanced by annual donations of money and volunteer time from community individuals, companies, conservation clubs and organizations, with priority given to safety and accessibility. Control of invasive species such as phragmites, continues to present a challenge. Many improvements at conservations areas were completed this year, including upgrades at C.M. Wilson, a "Visioning Project" at Longwoods Road, and a new trail at Walter Devereux. The "Myslik Wildlife Preserve" was a 40 hectare land donation, also received in 2017.

## EDUCATION

A new elementary school program "Balance and Biodiversity" combines the Heritage and Sciences curriculum strands at Longwoods Road Conservation Area. It outlines species at risk and their current threats, emphasizing the importance of balancing the use of our natural resources with proper stewardship, as exemplified by the local Haudenosaunee people living here 1,200 years ago.

### Conservation Education

The Conservation Education program operated from Longwoods Road Conservation Area provides Ontario Curriculum based, field trip and in-class programs to students and community groups and at public events. Our programs foster an understanding and appreciation of the natural resources and encourage wise stewardship practices. LTVCA also supports student co-op education.

At Longwoods Road and C.M. Wilson Conservation Areas, programs reached 1,456 students over the past year. A popular in-class program sponsored by local service clubs is the grade 2 River and Creek Safety Program, engaging 261 children. Staff helped out at the spring St. Thomas-Elgin Children's Water Festival. LTVCA hosted the annual Chatham-Kent and Lambton Children's Water Festival with over 1,700 students, teachers, parent leaders, sponsors and volunteers participating in October.

### Ska-Nah-Doht Village & Museum

Ska-Nah-Doht Village and Museum continues to be a community leader, to educate about the past, collect and preserve local history, and faithfully interpret the Haudenosaunee - People of the Longhouse. Staff acknowledge the financial support from the Ministry of Culture as well as summer student grants. The Heritage Build Project was completed with a new longhouse and palisade maze, and celebrated at our "Taste of Fall" Canada 150 event. Thanks to Canada 150 Community Infrastructure Program Intake Two, GreenLane Community Fund and Lower Thames Valley Conservation Foundation for their financial support.

Ska-Nah-Doht Village welcomes tourists from around the world and operates The Turtle Trail Gift Shop, a feature not to be missed! Our Ontario Curriculum based education programs attracted 4,028 students in 2017.

# Partnering With The Community

## COMMUNITY RELATIONS ... a part of all programs

Communications enhance awareness and understanding of the goals and programs of the Conservation Authority for our target audiences, enabling them to support and enjoy our facilities and services.

We inform the LTVCA Board of Directors and Committee members, Councillors and staff from member municipalities, Government agencies, Conservation Authority staff, watershed residents, media, conservation area visitors, project partners and more. Through social media, literature, advertising, media releases, special events, watershed tours, festivals, and displays, we broadcast our messages across the watershed.

Highlights of the year include an exhibit at the "Go Wild Grow Wild" expo in London, helping at St. Thomas-Elgin and hosting the Chatham-Kent & Lambton Children's Water Festivals, and special events like the "Longwoods Heritage Weekend" and "Season's Greetings" at Longwoods Road Conservation Area. A "partners" bus tour was also held. The "Canadian Coasters" celebrated at C.M. Wilson Conservation Area with their 150th Anniversary Tour car show in partnership with the Children's Safety Village. Four memorial forest dedication services were held in connection with the Conservation Foundation and local Funeral Homes.

Outstanding individuals are recognized at award presentations throughout the year, however we thank all our 100's of volunteers that helped create a balanced and healthy watershed for our communities in 2017!



700

Dedicated volunteers gave 4,000 hours of their time

28

LTVCA-hosted events offered in conservation areas

1

Land donation totalling 40 hectares

42

Inspired partners provided \$2.04 M for watershed conservation



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for a detailed annual report visit our website under publications



"...for a balanced and healthy watershed"

463

Hectares preserved at 18 public conservation areas

17,024

Campers experienced our four conservation area campgrounds

5,745

Students & chaperones engaged in conservation and native studies education programs





# Protecting Life & Property

## WATER MANAGEMENT

Conservation Authorities are on the front lines of the Provincial Flood Forecasting and Warning program, and undertake floodplain mapping; modeling; monitor streamflow, rainfall and snowpacks; issue warnings; acquire floodplain lands and flood vulnerable structures; and operate dams, dykes, channels and erosion control structures.

### Flooding, Lake Levels, Drought

The Thames River did not accumulate significant ice cover, experiencing a melt event in January. Heavy rainfalls during the year caused flooded watercourses, triggering operation of the Indian-McGregor Creek Diversion Channel in March, May and November. Issued during the year were twelve advisories.

High water levels on Lake Erie and strong south winds led to frequent flooding along Erie Shore Drive in Chatham-Kent, with 29 advisories issued. Flooding affected 50 properties with erosion, breakwall failures, structural damages to dwellings, and concerns of a failure to the road/dyke.

The year began under a Low Water Level One condition, lasting through March when spring rains lifted the condition. Declared again for September and October was a Level One Condition. A Level One Condition is triggered if there is between 60% and 80% of the long term average rainfall over the last 3 or 18 month period, or if river flows are between 50% and 70% of the lowest average summer month flow (100% to 70% in the spring).

### Water Quality

Water quality monitoring is conducted at nine groundwater wells and 11 stream (surface) water locations for dissolved oxygen, pH, conductivity, temperature and nutrients, with supplementary analyses such as e-coli, metals and pesticides at select locations. Through a Canada-Ontario Agreement grant, the surface water sampling network expanded with an additional 11 locations and winter sampling. Monitoring results form the basis for grades reported in the Watershed Report Card.

### Benthic Macroinvertebrates Monitoring - Stream Health

Sampling for insects, worms and crustaceans that live at the stream bottom continued with the University of Windsor. Research will assist in developing a monitoring program most suitable for the region's unique biogeophysical environment.

### Binational Phosphorus Reduction Targets

The annual phosphorus loadings to the western and central basin of Lake Erie should be reduced by 40%. The Thames River is also a priority watershed requiring a 40% reduction in dissolved phosphorus and total spring loadings. In 2017, the LTVCA engaged in consultation and early actions to reduce phosphorous loadings and to help develop the Draft Canada-Ontario Lake Erie Action Plan.

The Thames River experienced three blue-green algae (cyanobacteria) blooms (August - October) in Chatham and upstream to Thames Road / Currie Road. Federal and provincial governments conducted sampling and LTVCA staff monitored the blooms, updating on locations, issuing media releases and answering questions.

## LAND USE PLANNING & REGULATIONS

### Municipal Plan Input and Review

To maintain the vitality of our watersheds and protect peoples' lives and property from flooding and erosion, Conservation Authorities administer the Conservation Authorities Act and its regulations. Under Section 28 of the Act (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation), staff regulate development and activities in or beside river or stream valleys, Great Lake shorelines, watercourses, hazard lands and wetlands. Development on these lands may require permission from the Conservation Authority to confirm that control of flooding, erosion, dynamic beaches, pollution or land conservation are not affected. Property inquiries from the public, lawyers, and real estate agents are important so that prospective buyers or people wishing to work in high risk areas understand the hazards. In 2017, the LTVCA reviewed 271 applications under this Regulation. Staff also provided 1,748 plan input and review services for our residents and member municipalities.

### Planning & Regulations Policies

Over the past two years, staff have updated policies used for the review of municipal planning applications and private submissions for development within regulated areas under O. Reg. 152/06 of the Conservation Authorities Act. The draft Regulations and Planning Policy and Procedure Manual addresses frequent issues and items encountered in the administration of the regulations and provincial hazard policy under the Provincial Policy Statement. The document incorporates LTVCA Board policy and decisions affecting existing buildings, buildings destroyed by fire, other hazards and infilling. As well as dealing with the unique geographical conditions within the LTVCA, reference to neighbouring Conservation Authority policies was included to ensure consistency within individual municipal jurisdictions.

The draft policy is being reviewed for comment by key municipal building and planning departments, public works and neighbouring Conservation Authorities. The revised document will be circulated for public review in early 2018.



### Thames River Clearwater Revival

This is a multi-agency partnership with the objective of improving the Thames River. Partners include Environment and Climate Change Canada, First Nations communities, provincial ministries, the Upper Thames River and Lower Thames Valley Conservation Authorities and the City of London. The primary activity was drafting recommendations and action items for improving water quantity and quality in the Thames River watershed.

# Enhancing Watershed Health

## TREE PLANTING, RESTORATION, STEWARDSHIP

The responsible care of our natural resources on a watershed basis is essential to balancing human and economic needs against the needs of our natural environment. Conservation Authorities have a long history working with landowners in the planning and delivery of watershed stewardship initiatives. Staff provide opportunities for local projects, which encourage a sense of ownership of environmental rehabilitation efforts. The LTVCA thanks our 10 member municipalities who recognize the need for and contribute to land stewardship, and acknowledges the financial support of our granting partners and dedicated volunteers.

The LTVCA collaborated with over 30 stewardship partners including First Nations, government ministries, corporations and NGOs, and the outcomes were tremendous! Working together, we restored habitats, enhanced biodiversity, protected species at risk, improved water quality and soil health, shared environmental knowledge between communities, and conducted scientific research and monitoring. \$1.3 million in stewardship grants provided assistance to 164 landowners, planted 134,221 trees, and naturally restored 117 hectares. Two bus tours highlighted stewardship efforts and we attended seven farm events. Ten wetland project sites had duck nesting boxes installed and the Ministry of Transportation awarded a contract to LTVCA for native vegetation restoration at Exit 90 on Highway 401.

### Elgin Clean Water Program (ECWP)

The ECWP is a cooperative program between Lower Thames Valley, Catfish Creek, Kettle Creek and the Long Point Region Conservation Authorities. It assists landowners with projects, which improve and protect water quality in Elgin County. Completed within the LTVCA watershed were fourteen projects. In total, the ECWP contributed \$36,246 to landowners within the LTVCA.



### Great Lakes Agricultural Stewardship Initiative (GLASI)

Growing Forward 2, a federal-provincial-territorial initiative, provides funding for GLASI. GLASI is delivered by the Ontario Soil and Crop Improvement Association (OSCIA). The key goals of the project are to improve soil health, water quality and pollinator health. 1. Jeannettes Creek Agricultural Phosphorus Reduction and Monitoring - \$115,094 assisted with the implementation of 52 Best Management Projects within the Jeannettes Creek study area. 2. Elgin County Watersheds Education & Outreach - A partnership between Lower Thames Valley, Kettle Creek, Longpoint Region and Catfish Creek Conservation Authorities is engaging local producers on soil health and water quality, encouraging action through on-the-ground projects.

The formation of The Thames River Phosphorus Reduction Collaborative (TRPRC) raised awareness and provided extension services to reduce phosphorus reaching our drains and waterways. The steering committee includes farm organizations, municipalities, NGOs, the LTVCA, Chatham-Kent Drainage, various academics, and First Nations.

LTVCA hosted two watershed tours: OSCIA Executive Outreach Tour and the TRPRC Tour.

### Species at Risk (SAR)

An Aquatic Species at Risk Biologist was hired to develop an aquatic SAR program for the LTVCA. The LTVCA received \$50,000 from Fisheries and Oceans Canada to develop a Section 11 agreement, which will guide future collaboration with the federal government to enhance the survival and recovery of fish and mussels in the lower Thames watershed and region. The provincial Species at Risk Stewardship Fund is providing \$65,000 per year for three years to improve habitat and conduct outreach and education for reptiles at risk in the LTVCA's watersheds.

### Conservation Scholarships and Awards

The LTVCA supported local scholarships and awards:

- Environmental Management diploma program - Ridgetown Campus of the University of Guelph
- The LTVCA Environmental Award

# Protecting Drinking Water Sources

## THAMES - SYDENHAM AND REGION

The purpose of the provincial Clean Water Act (2006) is to protect existing and future sources of drinking water. Protecting water at the source - municipal wells and water intakes - is the first barrier in a multi-barrier approach to providing a safe, clean supply of water. The Act is part of the government's commitment to protecting and enhancing human health and the environment, while implementing the Walkerton Inquiry recommendations.

The Upper Thames River, Lower Thames Valley and St. Clair Region Conservation Authorities partnered together to form the Thames - Sydenham and Region Source Protection Region and worked with municipalities, stakeholders and the public to develop a Source Protection Plan (SPP) to protect drinking water. The Source Protection Committee (SPC) is appointed under the Clean Water Act, 2006, representing municipal, business, general public and interest group sectors in the region. The Committee is responsible for guiding the SPP. Jenna Allain is the Source Protection Coordinator.

In 2017, Conservation Authority staff supported implementation of the SPP and monitored local progress. Mr. Dean Edwardson was appointed by the Minister of the Environment and Climate Change (MOECC) in March as the new SPC Chair, and the size of the SPC was reduced to 15 members. Upper Thames River Conservation Authority established a regional Risk Management Office on behalf of seven municipalities, including the Municipality of Chatham-Kent, with a service agreement to December 2020. The Conservation Authorities were directed to submit a workplan in consultation with the SPC, participating municipalities and the MOECC, with detailed steps for the review of the SPP by November 30, 2018.



The SPP contains an education and outreach policy targeting the handling and storage of hazardous chemicals in concentrations typical of household use. Staff delivered flyers in each wellhead protection area, including areas within the Lower Thames watershed. A website and promotional video were produced as part of the campaign and can be viewed at [www.protectingourwater.ca](http://www.protectingourwater.ca).

## ABOUT THE LTVCA

### Our Vision

The LTVCA...for a balanced and healthy watershed.

### Our Mission

Leading by example in environmental protection in partnership with the community.

### Our Core Values

Respect, integrity, commitment, objectivity, and collaboration.

The Conservation Authority's area of jurisdiction lies over the watersheds of all streams, which drain into the Thames River from the Village of Delaware, to Lake St. Clair. Southern boundary has jurisdiction over the watersheds of all streams, which drain into Lake Erie, from the Talbot Creek watershed in the east, to the Two Creeks watershed in the west. Total area covers over 3,275 square kilometres (1,264 square miles) in southwestern Ontario and is home to over 120,000 people.

Ten member municipalities appoint representatives to a Board of Directors. The LTVCA's budget of \$3,097,028 received approval in February.

41

Flood bulletins issued

2,019

Regulatory and municipal plan review services provided

39

Media releases published

32

Provincial water quality monitoring sites operated

164

Landowners assisted with \$1.3 M in stewardship grants

134,221

Trees planted

117

Hectares naturally restored

DRINKING WATER  
SOURCE PROTECTION  
ACT FOR CLEAN WATER

St. Clair  
Conservation

Lower Thames  
Conservation

UPPER THAMES RIVER  
CONSERVATION AUTHORITY